



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/818,715	03/27/2001	Kwok Pun Lee	US010071	1324
24737 7590 08/09/2007 PHILIPS INTELLECTUAL PROPERTY & STANDARDS P.O. BOX 3001 BRIARCLIFF MANOR, NY 10510			EXAMINER HUYNH, THU V	
			ART UNIT 2178	PAPER NUMBER
			MAIL DATE 08/09/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/818,715	LEE ET AL.	
	Examiner	Art Unit	
	Thu V. Huynh	2178	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6-11, 13 and 14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 8-11, 13-14 is/are rejected.
- 7) ☒ Claim(s) 6 and 7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2178

DETAILED ACTION

1. In view of the appeal brief filed on 12/20/06, PROSECUTION IS HEREBY REOPENED. News ground of rejections set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:


STEPHEN HONG
SUPERVISORY PATENT EXAMINER

2. This action is responsive to communications: Appeal brief filed on 04/24/07 to application filed on 03/27/2001.

3. Claims 1-4, 6-11 and 13 are pending in the case. Claims 1 and 8 are independent claims.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Art Unit: 2178

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 8-9, 13-14 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 8-9, 13-14 are for a system comprising DICOM parser, XML formatter and XML builder components. However, such components are software components. Therefore, claims 8-9, 13-14 are software per-se and non-statutory subject matter. It is noted that claims 13-14 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims as well as overcome 101 rejections.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

6. Claims 1-4, 8-11 are rejected under 35 U.S.C. 102(a) as being anticipated by Clunie (hereinafter Clunie1), “DICOM Structured Reporting”, copyright 2000, pages 7-13, 31, 237, 306-314, 325-344.

Regarding independent claim 1, Clunie1 teaches the steps of:

- mapping each DICOM attribute of a plurality of DICOM attributes in the DICOM document into a corresponding XML element of a plurality of XML elements (Clunie1, pages 308-309, 337-338, 342, 344; DICOM parser parses each DICOM

Art Unit: 2178

- attribute in a DICOM SR document; and transform the parsed DICOM SR document into XML document by directly mapping such attributes to corresponding XML elements, “every attribute of a DICOM encoding of the SR construct is transcoded into an equivalent XML tag. So for example, there is a <conceptname> tag corresponding to the DICOM Concept Name Code Sequence attribute”);
- outputting each XML element of the plurality of XML elements to the XML document, in a format that conforms to an XML document type-definition of the XML document (Clunie1, page 312, second paragraph from the bottom, “output from the XSL-T engine can be any form of text: it does not need to be HTML or XML; page 342, the paragraph before “Summary” section; page 343, the sixth triangle, “XSL Transformation (XSL-T) engines ... can produce any form of text-based output, including XML, HTML, PDF”; page 344, figure 53, “XSL-T Transformation Engine”; Clunie1 teaches outputting XML elements to XML or HTML document using XSLT style sheet tailored to a DTD (document type definition)),
 - wherein the mapping of each DICOM attribute into a corresponding XML element is independent of the XML document-type-definition of the XML document (Clunie1, pages 308-309, 337-338, 342, 344; figure 53; “transform the DICOM SR into XML first, then apply XSL-T”, wherein the XSL-T is used to outputting XML element to XML or HTML tailored to a DTD. This inherently discloses that the transform DICOM to XML element is independent of the DTD of the XML or HTML document).

Art Unit: 2178

Regarding claim 2, which is dependent on claim 1, Clunie1 teaches formatting the XML element via one or more XSLT templates to conform to the XML document-type-definition (Clunie1, page 312, “XML and Presentation” section, third paragraph; pages 340-341; 342; page 343, the sixth triangle, “XSL Transformation (XSL-T) engines ... can produce any form of text-based output, including XML, HTML, PDF”; page 344, “XSL-T Transformation Engine”; Clunie1 teaches XSLT style sheet is used to format the XML elements of the XML document or the XML Simulated Events into XML or HTML document that conforms to XML or HTML DTD).

Regarding claim 3, which is dependent on claim 2, Clunie1 teaches formatting of the XML element is via an XSLT engine (Clunie1, pages 344; “XSL-T Transformation Engine”).

Regarding claim 4, which is dependent on claim 2, Clunie1 teaches one or more XSLT templates correspond to one or more DICOM Information Entities (Clunie1, pages 331, DICOM document includes patient information; applying XSLT style sheet to format the XML document or XML Simulated Events, wherein the XML document includes patient information).

Regarding independent claim 8, Clunie1 teaches a system comprises:

- a DICOM parser that is configured to provide a plurality of DICOM attributes from a DICOM data file (Clunie1, pages 308-309; 337-338; 342, lines 8-21; DICOM SR parser is used to parse a DICOM document in order to convert the DICOM document to XML document or XML Simulated Events); and

Art Unit: 2178

- an XML formatter that is configured to provide a plurality of XML elements corresponding to the plurality of DICOM attributes (Clunie, pages 308-309; 340-342; 344; XSLT uses XSL templates to format XML document or XML events into XML, HTML, PDF, etc. output, wherein HTML or XML output has HTML or XML elements respectively corresponding the DICOM attributes); and
- an XML builder operably coupled between the DICOM parser and the XML formatter, said builder being configured to effect a direct mapping of each DICOM attribute of the plurality of DICOM attributes into a corresponding XML element of the plurality of XML elements independent of an XML document type-definition of an XML document comprising the plurality of XML elements (Clunie1, pages 342, lines 8-21; page 344, figure 53, Clunie-1 teaches “DICOM Encoded SR” is parsed by DICOM SR parser to extract DICOM attributes. After parsing, the parsed DICOM Encoded SR is provided to build “XML Simulated events” by mapping every attribute of the parsed DICOM Encoded SR into an equivalent XML element tag. After mapping (building the XML Simulated events) or XML document, the XML Simulated events are provide to an XSLT Transform engine to format the XML Simulated events into XML or HTML document for displaying. Therefore, Clunie1 teaches XML builder (mapping function) coupled between the DICOM parser and the XML formatter (XSLT) for mapping. Clunie1 teaches “transform the DICOM SR into XML first, then apply XSL-T”, wherein the XSL-T is used to outputting XML element to XML or HTML tailored to a DTD. This inherently discloses that the

Art Unit: 2178

transform DICOM to XML element is independent of the DTD of the XML or HTML document).

Regarding dependent claim 9, which is dependent on claim 8, Clunie1 teaches the XML formatter is configured to provide the plurality of XML elements in a format that conforms to the XML document-type-definition of the XML document (Clunie1, page 341; page 343, the sixth triangle; outputting XML elements to XML or HTML document using XSLT style sheet tailored to the XML DTD or HTML DTD of the XML or HTML output document).

Regarding dependent claim 10, which is dependent on claim 9, Clunie1 teaches wherein the XML formatter includes an XSLT engine that is configured to provide the plurality of XML elements based on one or more XSLT stylesheet templates that conform to the XML document-type-definition (Clunie1, page 341; page 343, the sixth triangle; XSLT engine uses XSLT stylesheets to output XML or HTML document, wherein the XSLT style sheet tailored to the XML DTD or HTML DTD of the XML or HTML output document).

Regarding dependent claim 11, which is dependent on claim 10, Clunie1 teaches wherein one or more XSLT stylesheet templates correspond to one or more DICOM Information Entities (Clunie1, page 331, "Display A", "Display B"; page 340, "XSL-T" section – 342, line 2; and applying XSLT template is used to format the XML document or Simulated Events to XML or HTML output document, wherein the output document includes patient information).

Art Unit: 2178

Allowable Subject Matter

7. Claims 6-7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

8. Applicant's arguments, see appeal brief, pages 4-7, filed on 04/24/07, with respect to the rejection(s) of claim(s) 1-4, 6-11 and 13-14 under 35 U.S.C 103(a) as being unpatentable over Clunie1 and Ricker et al. have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Clunie1 as explained in the rejection above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thu V. Huynh whose telephone number is (571) 272-4126. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen S. Hong can be reached on (571) 272-4124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2178

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TVH
August 3, 2007


STEPHEN HONG
SUPERVISORY PATENT EXAMINER